In the Forefront

Medicine's Place in Aviation Safety

C. I. BARRON, M.D., *Los Angeles*

ONE HUNDRED PHYSICIANS, biomedical specialists, pilots, stewardesses, airport managers, Federal Aviation Administration representatives, crash and rescue personnel, and disaster planning personnel attended the second conference on Medicine and Air Safety in Los Angeles, January 30-31. The meeting, sponsored by the California Medical Association Committee on Disaster Medical Care, featured nationally recognized authorities from the aerospace community and covered topics varying from human capabilities and limitations to airport medical services and disaster planning. The following facts and conclusions evolved from the presentations and discussions generated by them:

- Despite our extensive knowledge of flight physiology, accidents due to inadequate pilot indoctrination and understanding still occur.
- Psychiatric evaluation for flying appears to be inadequate. Irrational acts by pilots still contribute to accidents.
- Present training procedures make it impossible to adequately prepare the student pilot for safe and proficient flying.
- While drugs are rarely incriminated in general aviation accidents, alcohol is a significant factor in flight safety and contributes to at least 15 to 20 percent of all general aviation accidents.
- Pilot factors account for over 80 percent of the almost 6,000 general aviation accidents occurring each year which result in over 1,000 fatalities.
- A systems approach is needed to assure that information gained in accident investigation is properly utilized in preventing accidents of similar type.
- Increasing emphasis is being given to assure the physical and emotional health of air traffic controllers, whose role in air safety is becoming increasingly important with the expansion in air travel and traffic.
- Stewardesses and cabin attendants are assuming increasingly important roles in the in-flight handling of passenger medical emergencies and in the emergency evacuation of aircraft. Their training in these fields is being increased to assure proper execution of these functions.
- With use of the jumbo jets, which are expected to provide a degree of comfort and safety unexcelled in aviation to date, a broad passenger mix is anticipated—an increased number of older, younger, and medically marginal passengers. The possibility of in-flight medical emergencies is thus increased.
- The continued growth and success of the Airport Medical Services Center at Kennedy International Airport demonstrate that private enterprise can operate an efficient and profitable airport medical service and that such a service can be most effectively integrated into the disaster emergency planning of the airport.
- The need for a coordinated emergency disaster plan for all major airports was stressed. This

Reprint requests to: Division of Community Affairs, 693 Sutter Street, San Francisco, Ca. 94102.

should involve all crash and rescue facilities, local police, medical resources, area hospitals, and communication media in the community. The need for proper communications, sorting and rapid evacuation of casualties, hospital disposition, and availability of skilled medical assistance is self-evident. Few such integrated plans exist today.

- Since many, if not most, fatal aircraft accidents occur off airport property, coordination of the airport disaster plan with the local community disaster plan is needed.

- A recent survey by the Airline Pilots Association has shown that only 110 United States airports have good fire crash rescue capabilities; whereas 197 have no capable equipment located on the air field.

- The county medical association is the logical agency to write the medical portion of the disaster coverage plan, fitting it into the general community disaster plan.

- There are currently no FAA regulations requiring certification of airports with respect to emergency disaster plans and facilities. Such regulations may be needed if local authorities are unable or unwilling to provide adequate plans of their own.

- The air evacuation helicopter offers great promise for rapid evacuation of aircraft accident casualties; however, its capacity may be inadequate in accidents involving mass casualties.

- A good emergency plan should include all available rescue agencies and resources, including those from nearby military bases, Coast Guard and civilian sources.

- At the end of the meeting, a resolution was passed requesting the Council of the California Medical Association to introduce a resolution before the CMA House of Delegates requiring that (1) the CMA assume a role of leadership by assembling the proper private and government organizations to further pursue this matter; and (2) that an Interagency Council with representation from the appropriate organizations be formed to implement the recommendations from these conferences, and (3) that each component medical society should assess its own requirements in light of any possible disaster and prepare plans to suit the individual needs, including assistance in coordinating their efforts with nearby facilities and organizations. The House adopted the resolution.

In summation, it appears that much is known about man's capabilities and limitations and of the stresses produced by the aerospace environment in which he flies. Despite this, accidents still occur for the same reasons as in the past, and many of these result from pilot-induced factors. It appears that the major problem in aviation safety is the application of our existing knowledge to aircraft accident prevention training, with increased emphasis on pilot indoctrination. It also appears that a more vigorous effort on the part of the local communities working with responsible airport authorities and organized medicine is needed in order to assure optimization of airport emergency plans.

BACITRACIN-RESISTANT STAPHYLOCOCCI

"In the past we have advocated the use of bacitracin in the therapy of serious staphylococcal disease in newborns. But in recent months under widespread monitoring, we have found bacitracin-resistant staphylococci have appeared all over the United States in a rather explosive fashion. They've been behind schedule; they should have appeared about a decade ago. But they are just beginning to appear now and they are rapidly increasing. For this reason, we no longer advocate the use of bacitracin on severe staphylococcal disease."

—HEINZ F. EICHENWALD, M.D., Dallas

Extracted from *Audio-Digest Pediatrics*, Vol. 15, No. 4, in the Audio-Digest Foundation's subscription series of tape-recorded programs.